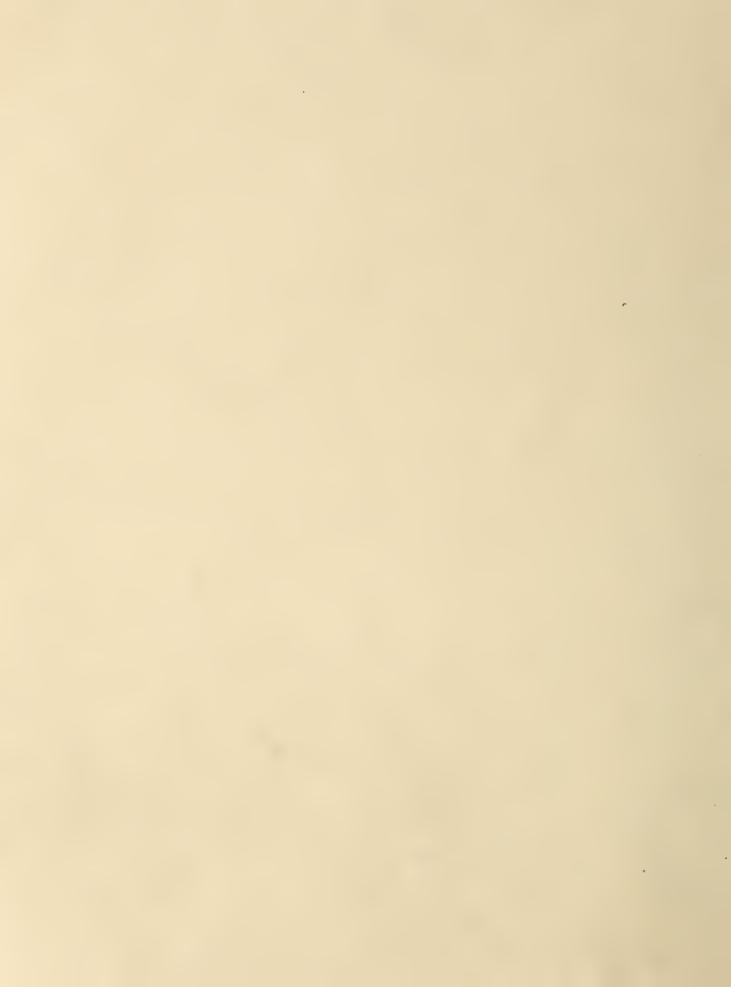
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SNOW SURVEYS AND IRRIGATION WATER FORECASTS

for

## Colorado River Drainage Basin

By

Division of Irrigation, Soil Conservation Service
United States Department of Agriculture
and
Colorado Agricultural Experiment Station

Data included in this report were obtained by the agencies named above in cooperation with the U. S. Forest Service, National Park Service, State Engineers of Colorado, Wyoming and New Mexico and other Federal, State and local organizations.

As of FEB. 1, 1951



# FEDERAL-STATE COOPERATIVE SNOW SURVEYS AND IRRIGATION WATER SUPPLY FORECASTS

FOR

COLORADO RIVER BASIN

Report Prepared

by

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and

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Miscellaneous Series Paper No. 475 Colorado Agricultural Experiment Station



#### WATER SUPPLY OUTLOOK COLORADO RIVAR DRAINAGE February 1, 1951

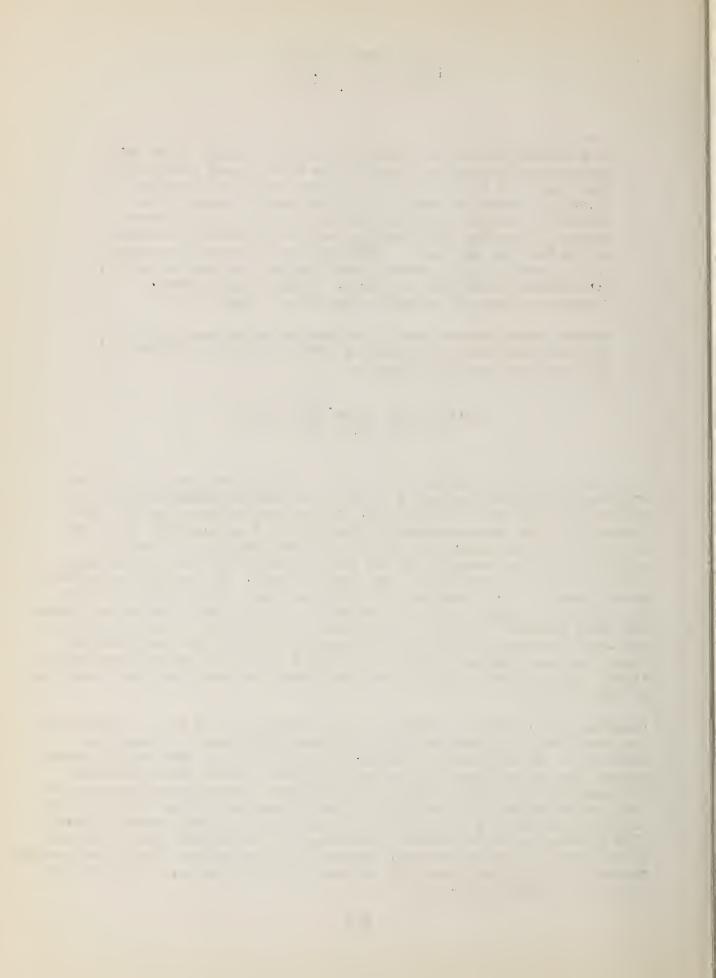
Snow accumulation on the headwaters of the Colorado River in Colorado and Wyoming to February 1 is above normal except for the Grand Mesa area and on the San Juan drainage in western Colorado. There has been very little snow in Northern New Mexico this season. The heaviest snow cover is on the headwaters of the Blue River ranging down to 75 percent of average on the San Juan drainage. Soil moisture conditions are generally poor in valley areas. Precipitation has been deficient for several months till the end of January general storm. Reservoir storage is generally much below normal.

Drouth conditions continue in Arizona as far as snow cover in high mountain areas is concerned. Precipitation and stream flow has been much below normal.

#### COLORADO RIVAR AND TRIBUTARIES IN COLORADO

Colorado River (above Glenwood Springs): The snow cover on the Colorado River above Glenwood Springs is about 140 percent of normal which is substantially above this date for 1950. On the headwaters of the Blue and Frazer rivers the snow accumulation to February 1 is unusually high. On the Grand Mesa and adjacent areas the pattern changes and the snow is slightly less than average. On the Roaring Fork headwaters general snow conditions are the same as for the Upper Colorado. It should be noted that about one-half of the snow in this watershed comes after February 1 and any estimate of summer runoff is subject to snow to come later in the season and other factors. Storage in Green Mountain reservoir is now about 92,000 acre-feet as compared to 114,000 a year ago on this date. Soil moisture conditions are reported as fair in the upper valley and dry at lower elevations. Stream flow is reported as about normal and range and crop conditions as fair to good.

Gunnison River: On the headwaters of the Gunnison River and its tributary, the North Fork, the snow cover is high, over 150 percent of normal for February 1. To the south of the main river on the Lake Fork and the Uncompangre snow cover is about 85 percent of normal. Grand Mesa tributaries are also slightly below average. Soil moisture conditions are reported as good in the upper valley and fair in the Uncompangre valley. Valley areas are snow covered as a result of the end of January general storm. Stream flow is reported as 46 percent above normal on the Gunnison and 26 percent above normal on the Uncompangre. Recent precipitation has been about average. Storage in Taylor Park reservoir is about 47,000 acre-feet. A year ago the storage was 70,000 acre-feet.



Yampa and White Rivers: On the Yampa River the snow cover is above normal on the headwaters and on the Southern tributaries. Near normal snow conditions exist on the Elk and Little Snake Rivers. Precipitation has been slightly above average and soil moisture conditions are reported as good. On the North Fork of the White River snow cover is well above normal but is slightly below average south of Buford. Soil moisture conditions in the Meeker area are reported as generally deficient and range and crop conditions are fair.

Note: The percent of normal snow cover shown on the attached map for the White River is in error as it was based on incomplete data. The correct figure is 110 percent.

San Juan and Animas Rivers: Snow cover on the San Juan mountains was very low till the end of January. This storm was general and unusually heavy for a relatively short period. Snow water content on the courses at Wolf Creek Pass and near Silverton doubled in about three days. The snow fall extended to valley elevations with 6" to 8" of snow in Durango. On the headwaters of the New Mexico tributaries the snow cover is still very low. The overall average for the San Juan Basin is about 75 percent of normal. Soil moisture conditions were poor and considerably more precipitation will be necessary to effect improvement. The irrigation water stored in Vallecito reservoir is now 23,900 acre-feet as compared to 49,400 a year ago. In Jackson Gulch reservoir there is now stored 2,300 acre-feet. Last year at this time it was 2,900 acre-feet.

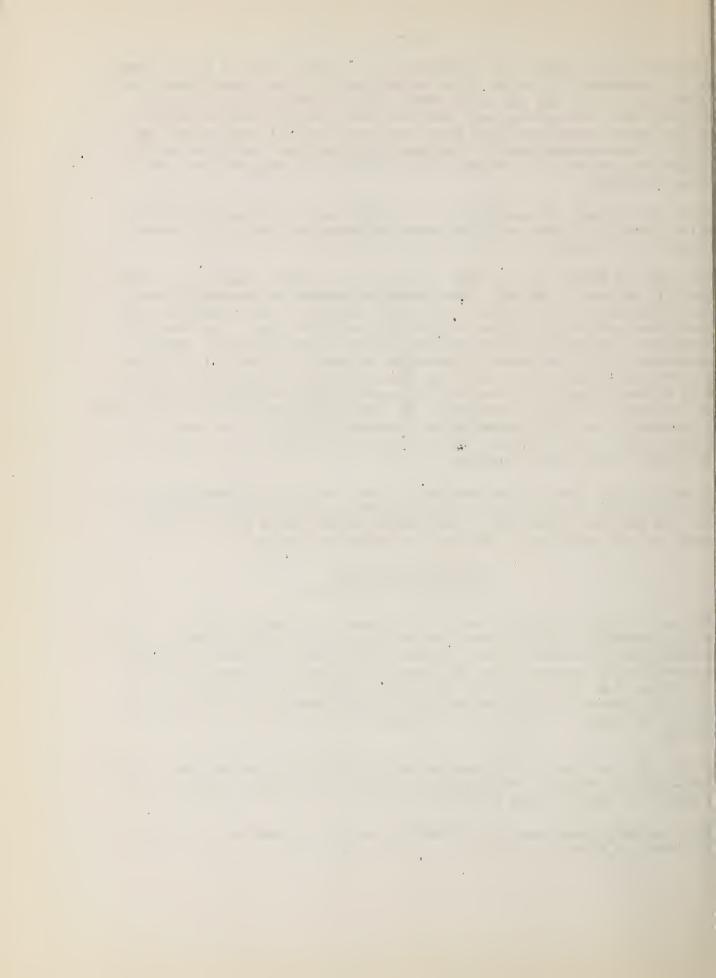
Dolores River: From limited surveys the snow cover on the headwaters of the Dolores and San Miguel Rivers is about normal. Soil moisture conditions are now low and stream flow is well below normal. Snow fall in valley areas is less than for the San Juan and Animas watersheds.

#### COLORADO RIVER AND TRIBUTARIES IN ARIZONA

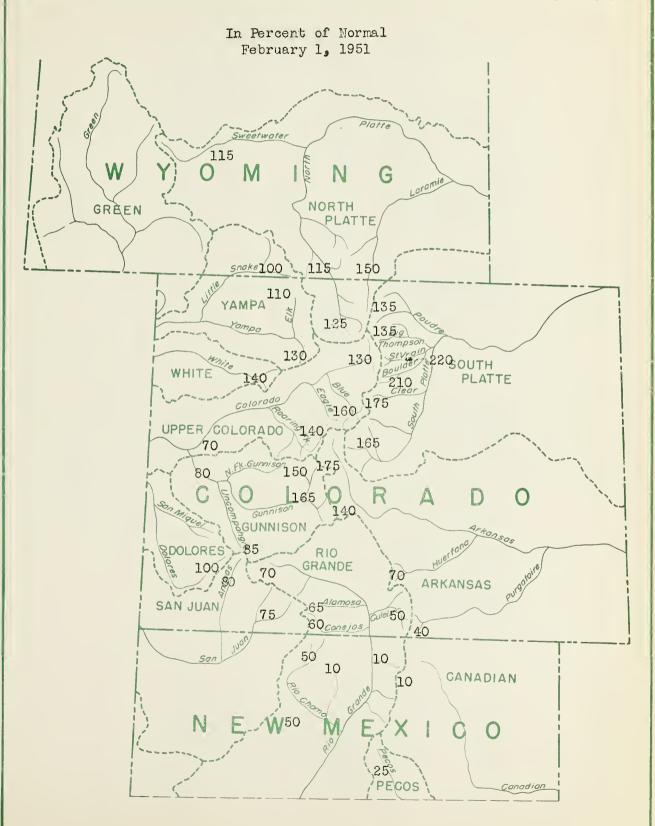
The water supply outlook for Arizona continues to be poor. Mountain snow fall is probably a little above last year due to snow about February 1, after measurements were made on most courses. Precipitation is below normal and stream flow is reported to be the least for the period of record of about 38 years. Soil moisture conditions on the high mountain watershed of the Verde is reported as fair but very dry on the headwaters of the Salt River. One to two inches of rain fell at the end of the month on the Salt River Valley.

Storage in the four major reservoirs on the Salt River totaled about 225,000 acre-feet on January 15 as compared to 308,000 a year ago. San Carlos was reported as empty on this same date.

Net storage in Lake Mead is 17,564,000 acre-feet as compared to 18,9\$1,000 acre-feet on February 1, 1950.



WATER CONTENT OF SNOW ON THE WATERSHEDS OF
PLATTE, ARKANSAS, UPPER COLORADO AND RIO GRANDE BASINS
BASED ON SNOW SURVEYS MADE APPROXIMATELY FIRST DAY OF MONTH





SNOW SURVEYS AND IRRIGATION WATER FORECASTS

COLORADO RIVER BASIN

STATUS OF RESERVOIR STORAGE, FEBRUAY 1, 1951

STCAGE About February 1	10-year Avg.*	67.3 44.5 * 65.6 * 59.66.0 59.6 59.6 59.6 185.9 17.5 17.5 17.5
RAGE abou	1948	91.0 72.0 10.0 88.7 88.7 19,886.0 150.0 150.0 16.1 3.7 0.9
N	1949	61.6 57.5 6.0 72.2 19,189.0 592.0 223.5 103.8 27.3 27.3 16.1 116.1
THOUSANDS ACRES FEET	1950	70.2 19.4 113.6 113.6 113.6 13.961.0 340.6 203.4 25.8 25.8 25.8 25.8 25.8
THOUSAN	1951	17,654.0 3.0 92.3 17,654.0 619.7 170.00 70.00 9.00 0.00
USABLE	(Thous.A.Ft.)	106.2 126.3 21.7 146.9 27935.0 688.0 245.0 245.0 245.0 200.0
RESERVOTE		Taylor Park Vallecito Groundhog Green Mountain Lake Mead Lake Havasu Roosevelt Horse Wesa Mormon Flat Stewart Mt. Bartlett Carl Pleasant
יוייםכושה מייי זיידה ייי	BASLIN AMD SERFEMA	COLORADO DRAINAGE Taylor River Los rinos River Groundhog Creek Blue River Colorado River Colorado River SALT AND GILA DRAINAGE Salt River " " " " Verde River Aqua Fria River Gila River

\*Some for shorter periods

\*As of Jan, 15, 1951

. 1

# SNOW SURVEYS IND IRRIGITION WATER FORECASTS

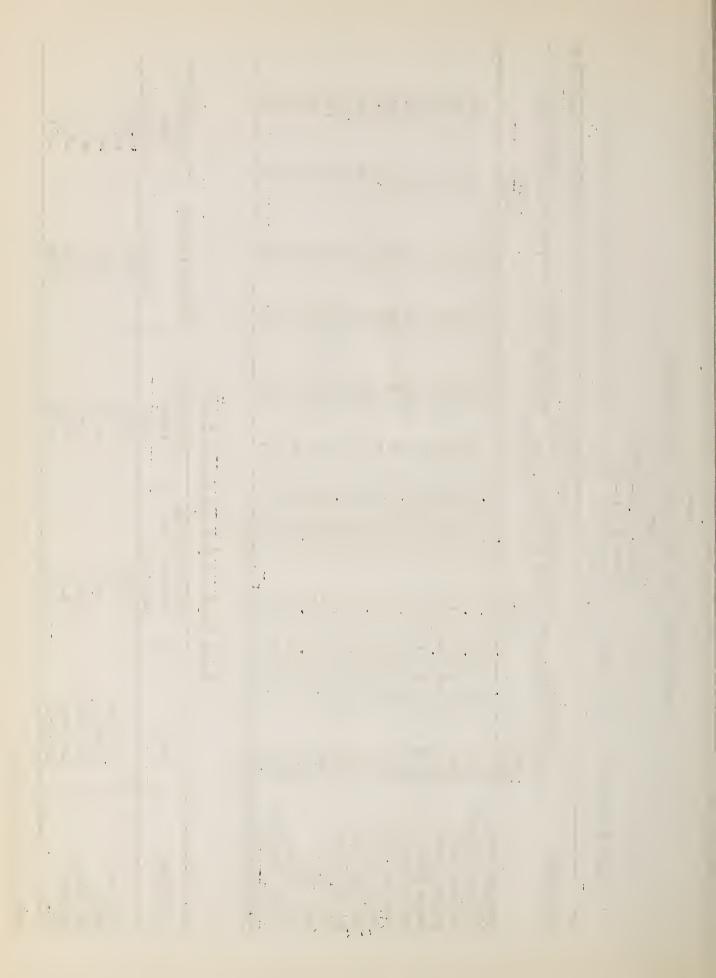
COLORADO RIVER BASIN February 1, 1951 SUNGTARY OF FEBRUARY 1 SNOW SURVEYS AND COMPARISON OF DATA WITH THAT OF PREVIOUS YEARS BY WATERSHEDS

1951 Water Content in	percent of	n 1950				152	140	779	111	144	124	122	99	116	167	93	33	72	50	
1951 Wa-	per	Fourteen	year	AVEX		170	170	99	118	110	122	107	92	85	63	748	16	97	9	
		1951	-	•	c Percent	57	27	22	27	23	22	19	20	20	16	13	17	17	17	
	Snow Density	1950			Percent	22	23	29	27	21	22	25	23	21	16	12	22	23	25	
	Snow I	Fourteen			Percent	23	23	25	56	25	23	23	25	23	56	56	27	27	30	
Number	Courses	'n	Average			17	m	П	w	2	∞	2	7	m	2	20	9	w	$\sim$	
	Jt.	1950 1951			In。	10,8	10.9	6,2	14.0	10,5		70,	6	5,0	1,57	1,3	0,6	7,2	0,1	0.0
	Conter	11			In.	7.1	7.8	9.7	12.6	7.3	7.4	4.5	10,3	4,3		1, 1		2,1	0,2	periods
	Water Content	Fourteen	year	Avg.*	In。	7.7	7.8	7,6	11.9	9°6	7.5	V. N.		°9		2.7	3.8	3,8	1,8	horter
		1951			In	44,6	39.9	27.9	52.6	146.5	42,1	28.4	33,3	24.9	9.2	106	4.4	10,4	0.7	for s
	epth	1,950			In,	32,4	33.4	33.8	47.3	34.9	33,2	23,8	44,0	20,3	N N	6,7	8,2	9.3	0.8	*Some for
	Snow Depth	Fourteen 1950 1951	year	Avg.*	In。	33,8	33,2	37,9	179.7	38.6	33.1	24.7	35.9	26.9	9.3	10,3	13.9	14,3	6,1	
	WATERSHEDS				COLORADO RIVER	Colorado River*	Roaring Fork	Plateau Creek	Yampa River	White River	Gunnison River	Dolores River	San Juan River	Animas River	Gila River	Salt River	Verde River	Little Colo.River	Williams River	***Above Glenwood Springs

## DATA TION PITA PRECI

		Precipitations	Departure	Precipitation*	Departure
WATERSHED	STATE	October 1 to	from		from
		January 31	Normal	January	Normal
		Inches	Inches	Inches	Inches
Colorado	Colorado	5.44	-0.26	1,97	<b>4-0-3</b> 9
Green	Wvoming	2,76	97.0-	988	<b>~0.</b> 22
San Juan	New Mexico	1.67	-1.91	1.02	+0.39
Colorado	Arizona	1.92	-3.50	1.39	-0.07
Gila	Arizona	1.87	-3,84	1,68	-0.10
The state of the s		Annual Control of the			

\*Precipitation tentative



COLORADO RIVER DRAINAGE SNOW SURVEYS February 1, 1951

		Location	tion		-			1 I		Cower Measurements	asureme	nts
Drainage Basin	No.				Date		MO	Water (	Content (	(Inches)		Past Record
and	and	Sec	Twp.	Range	Elev, of	of Depth	Depth (Traped)	ראַסר	יייטעטר	סיוסר	Yrs. of	Av. Water Content
Stiow Course	מישים				CO	COLORADO	O RIVER	17.71	17.70	1747	• 202	(11101165)
COLORADO RIVER (	above Gle	Glenwood 8	Springs	(S		+						
Cameron Pass*	1 0010.	~	- 6N	76W	10300 2/1	149.8	8,	14,0	12,3	16.5	12	11,8
Park View*	7 11	24	5N	78M	9200 11/3	1 30	0.	5.7	6,1	8,6	H	5.5
Phantom Valley	12 "	_	SN	75W	9300 1/29		9,	9.5	5.4	10,2	15	5,7
	177 "	13	88	7.8W	11400 1/3	7 1 44	0,0	11,4	7.7	8.3	12	ν, σ
Berthoud Pass	16 "	32	25	75W	8700 1/30	0 48,8	8	10,9	7. 8	10,4	15	8.6
Tennessee Pass	19 "	77	88	80W	10200 1/3	1 10	8,	8,6	7. 7.	6.8	15	4.7
M. Fork Camp Gr.	37 "	16	38	77W	2		8,	7,5	3.0	6,9	17	5,6
Fiddler Gulch	177	Н	85	80W	11000 2/2		9.	14.5	8,1	12.0	17	8,3
Willow Creek P.	62 n	Н	NT/	78W	7		ν̈́	6,8	8.4	12,4	7	6°9
N. Inlet Grand L.	" †19	56	TN TN	75W	7	~	Ţ,	6.7	3,8	9.1	12	5.2
Lake Irene	e 29	8	SN	750			ņ	17,8	10,7	19,3	12	12.5
Thunderbolt Peak	<b>11</b> 99	22	2N	74W	2		٠ ر	11.0	11.6	18,1	12	10,5
Arrow	n 69	34	JS	75%	9900 1/30	- p-1		7.4	4,2	7.5	12	5.1
Fremont Pass #2	11 62	~	88	791	7		7.	15,2	8,6	10,5	13	8.4
Lynx Pass	91 "	27	2N	83W	9100 1/2		•2	ぴっ	6,1	9,11	17	7.5
	n 96	15	65	191	7		6.	14.9	හ හී	10,9	6	7°6
Grizzly Peak	n 79	~	55	76W	7		۲.	15,7	9°8	13.0	6	9.8
ch	102 "	31	25	778	2		•2	2.5	2,9	7,5	m	
Monarch Lake	106 "	30	SN	-M72	2		_ 0	8°7	8,7	1	Н	
Granby	112 "	П	SN	77 W	1/2	ω	7,	y Z	3,3	1°9	2	
Lake	127 #	36	F	75W	1/3	r-i	60	<b>6.</b> 8	3,9	8,7	~	
ummit	138 "	10	3N	754	1/2		0.	12,8	1	1		
Frazer View	129 "	34	28	75W	11/2		ņ	8,2	ŀ	1		
Gore Pass	1773 "	2	P,	82W	11/2		5	7, 8	!			
Frisco	" 94r	18	68	781	11/3		<u>ر</u> ،	8.6	1	1		
liver	177 "	6	58	761	9700 1/26		0.	9.2	1	!		
Summit Ranch	158 "	ω	l <sub>t</sub> S	781	1		2,	7,8	1	1		
	Ave	Average f	or Draina	inage	of the pain and	廿	9.	10,8	7.1	11.74	- Company and Spanson - Pri	7.7
*On adjacent dra	drainage				-						The ob equipment	
>	)						~					

\* 

COLORADO RIVER SNOW SURVEYS February 1, 1951

	Cover Measurements	Past Record	AVo	ord (Inches)				14 4.0	2.6			Z•2		10 10.8		12 9.6			1		13 18,3	11.9		15 10.3	11	0.6		14 9.44
- 1	N.	Inches)		1949 Record		1	10.5	5.6	13.7	6.6		10.5		16.1	19.6	14,5	11.6	!	!	!	28.1	17.9		11,04	14.4	12.9	(	12.9
	- 1	Content(In		1950		(	ω 6	0,0	16.7	7.8	•	9.5		10.3	11.0	12.9	6.1	!	-	;	22.6	12.6		7,00	6.1	7.3		).*6
		Later C		1951		1	13.9	6.1	12.8	8.4	14.2	10.9		14.4	20.9	9.5	7,00	28.8	21.0	6,8	19,3	14.0	(	α•2	12,7	10.5	(	2.0
		Snow		(Inches)	R	,	53.1	30.0	36.7	41.2	53.2	39.9		52.3	70.2	779	31.2	88,5	69.5	17.0	63.4	52.6		41.8	51.1	16.5	E	27.9
ebruary 1, 1951		Date	Elev. of	Survey	COLORADO RIVER		10700 2/2		10400 1/29		10700 2/2	0,0 0,0		8200 1/31	9300 1/31	2	9100 1/27	7	9550 1/31	8500 1/31	Н	-8-		777 0006	2002	lge		10000 2/3
4	rion	e-radios	Range	-	Q.			-	82w			r drainage	and and the same	841.	821	8511	837	8374	831	84m	85W	r draina		91W	8	r drainage		196
	Location		Twp.			1	113	98	98	88 83		age for	***************************************	Z.	Z.	TON	2N		- 5N	<u>K</u>	14N	age for		2S	A	age for		115
	i	_	Sec.				30	_	12	2	.24	Average		56	21	9	27	7	30	27	59	Average		77		Average	)	35
		No.	and	State			33 Colo.	元 "	100	131 "	145 "			6 Colo.	<b>*</b>	n 6	11 16	140 11	1/17 "	1742 "	9 Wyo.			35 Colo	36 "		,	56 Colo. 35
		Drainage Basin		Snow Course		ROARING FORK	Ind. Pass Tunnel	Nast	Ivanhoe	Woods Lake	Lincoln Gulch		YAMPA RIVER	Dry Lake	Columbine Lodge*	Elk River	Lynx Pass*	Routt Line	Rabbit Ears	Yampa View	Old Battle*		WHITE RIVER	tain	Rio Blanco		PLATE TO CREEK	Mesa Lakes

\*On adjacent drainage



COLORADO RIVER SNOW SURVEYS Februery 1, 1951

+ 3	Dast. Becord	15	(Inches)		_	7.7	9.9	6,2	ν, O	12,9	6,1	7.0	8,7		7,5	7.55		16.3	18.7	3.0	7.6	٧. ٧.	white mean	4.2	2.00	۸°۵	3.6	200	7.0						( 6.1
2+ nomon is cold	out childre	Yrs. of	record		`	7	7	15	77	14	ET.	17	1	_	2			7	Ħ	12	12	6	ı	11	5		12	12	17					•	
	1.0		1949			1,9	10,1	9,1	0,8	17.2	6,9	11,6	10,9	7,5	2,0	10,5		27.2	31.3	6,1	16,6	۳° 8°	1	6.7	0.01	7°47	6,1	16,6	11,6						11,04
anom Course	ont.	/	1950			11,0	J. 57	3,9	6,2	15.7	9°6	5,6	\frac{1}{2}	w W	1,5	7.4		24.0	25.7	1,0	9.2	7°7	1	٣ ٣-	4,0	10,3	1,0	9,2	<b>2°</b> 6						4.3
	Water		1951		(	13.8	7.6	0°6	7.9	9.1	7.5	0°9	11.1		2.8	9,2		13,1	16,3	14°3	7.8	2,9	12,1	2,4	ん。ひ	0	11,03	, 8°, 1	0,9	12,2	8.4	6,4	ස ගී	17,3	0,0
10 17 71	Show	Depth		ADO RIVER		61.4	38°6	29.9	1,0,1	797	36,1	29.3	54.8		18,1	42,1		.299	78.2	21.6	23,9	11.9	62,4	15,4	15.5	3503	21.6	23.9	29,3	55,1	40.5	33.7	43.6	68,5	24.9
rental	Date C	Elev. of	Survey	COLORADO		9000 2/2						9800 11/31			10000 1/31	age		1/2 00001	3	<u> </u>	己	己	2	7750 2/1	200 (2)	<b>0</b>	16/1/0076	8850 1/29	8700 1/31	7	7	9800 1/31	16/1 00801	15/1 00011	986
	4	Range						五/	24		100	7w	ur under til dage tre		3E	for Drainage	-Miller and -	strake	出	E	M6				( )	ior brainag		N6	R					1 NO	for Drainage
1000+1000		Twp.				138	N817	148N	11/S	128	138	13N	N64	13N	$\geq$	Average fo	-	37N	37N	TI	39N	37N		36.9N		Werage I	NT7	39N	LJ3N	NOT	NOT	NT7	42N	$\geq$	Average fo
		Sec				100		19	19	2	17	29	13	<u>n</u>	12	AVE		Colos	10	10	12	24		N. Mex	~	HAVE	Colo. 10					15	35	13	AVE
		and	State				# 21	<u>.</u>	91	53 "	5 5 =	58	68	, †OT	<b>1</b> 26 <b>"</b>			56	<b>1</b> 58	<del>۔</del> 0	37 "	93	155	17 N	ΣΤ		30 Cc				150 "	151	152 "	153 "	
	Urainace Basin		Snow Course		GUNNISON RIVER	Crested Butte	Marshall Pass	Poncha Creek*	Park Cone	Alexander Lake	ರ	ark	Creek	Lake City	Pass		SAN JUAN RIVER	Wolf Creek Pass*		Silverton Sub.S.	Cascade	Granite Peaks	Wclf Creek Summit	Chama Divide*	Cham tax	ANTHAS BIVER	Silverton Sub. S.	) )	Ironton Park	Spud Mt.	Molas Lake	Howardville	Creek	Red Mt. Pass	•

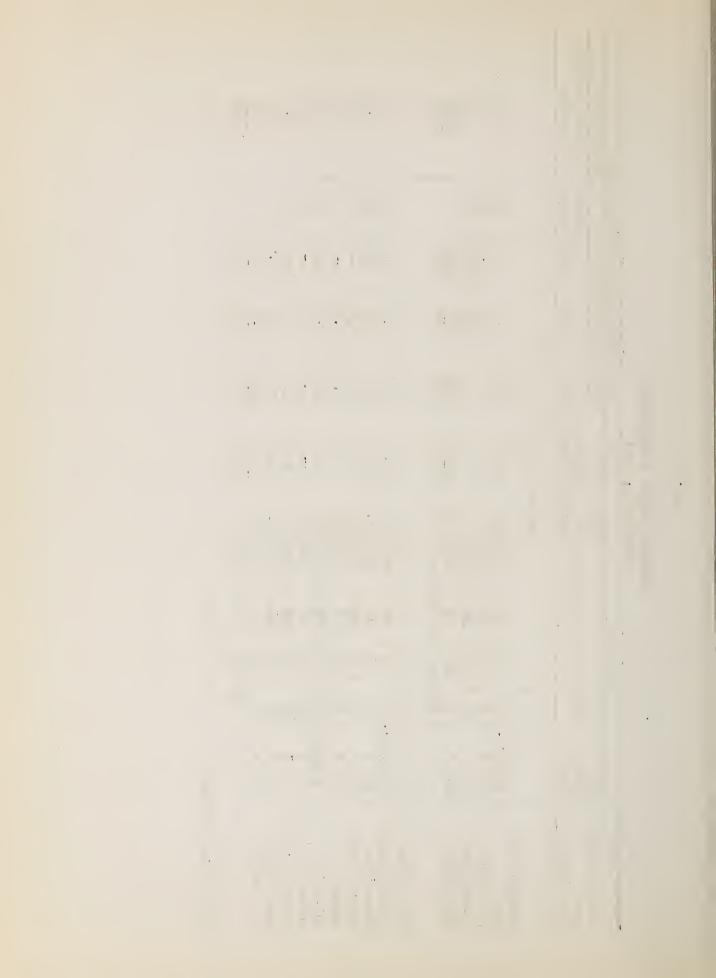
\*On adjacent drainage

5, 1. . 2

COLORADO RIVER SWOW SURVEYS February 1, 1951

	nts	Past Record	Av. Water Content	(Inches)				7.57	7.8	9.7	10.8	5.3			2.4	0 m	8.0	6.0	2,6	3.4	3.7	0°0	2,6	2.14
	Measurements		Yrs, of	Record				디	12	12	2				H	13	0	7	13	13	H	Н	Н	
	urse Mea	Inches)		1949				°, 7,	7.8	20.9	11,8	8.2			ν, ∞	707	1	1	8,1	8	10,5	0,0	000	8.0
	Snow Course	Water Content(Inches	7	1950				м м	3.4	13.6	2.6	4.5			L, T	1,0	0.0	0.0	0.9	2,3	0,7	0,0	2.6	6.0
		Water (	)	1951				5,0	0.9		9.1	5,5			1,6	l,	1,8	2.0	0,9	1	7.67	1,3	1,9	1.5
L, 1721		Snow	Depth	survey(Inches)		COLORADO RIVER		27.2	29,6		41.6	28.4			11,2	10.9	0.6	9,2	7,5	-	7,5	6.4	8,7	9.2
February 1, 1951		Date	Elev. of	surve	-	COLORAI		8700 2/1			9700 2/1	nage	-		8000 2/1						8000 2/1			inage
	on		Range					111	818	TOW	M6	for drai	·		20W	21W	109	10W	30E	30E	30E	16E	16E	for dre
	Location		Twp.					39N	142N	NTH -	LLN.	Average 1				S)	108	11.8	en en	Nt7	238	125	128	Average
			Sec.					23 Colo, 11	9	27	8	Av			N.Mex, 21	<u></u>	50	9	Ariz. 23	<u></u>	56	15	9	~
		No.	and	State				23 Go	1 24	25 "	1174 "				11 Nº	177 "	25 13	23 "	1 Ar	2	2	29 "	30	· e negaminos
		Drainage Basin	and	Snow Course			DOLORES RIVE.	Rico	Telluride	Lizard Head	Trout Lake			GILA RIVER	Frisco Divide	State Line	Taylor Creek	Inman	Nutrios	Beaver Head	Coronado Trail	Rose Canyon	Bear Wallow	

\*On adjacent drainage

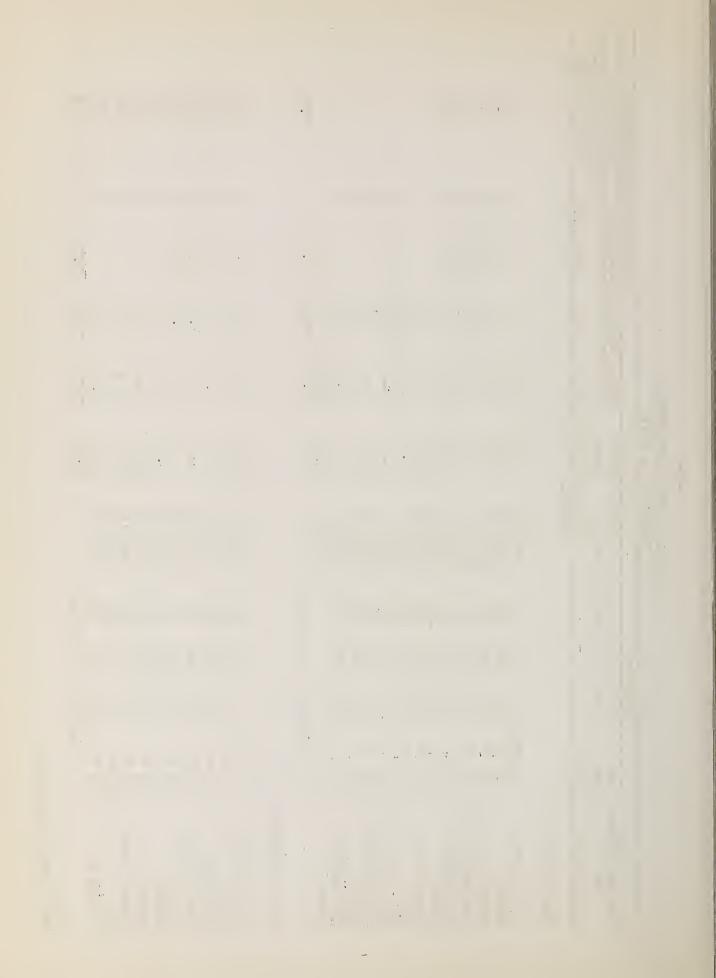


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COLORADO RIVER SNOW SURVEYS Tebruary 1, 1951

Source Control of the	sar ellerres	Past Record	of Av.Water Con- tent (Inches)		0.40 ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° °	2.7	
			Yrs. of Rec.		0111111111111111	чч	11111111111111111111111111111111111111
Caption Timon	SIIOW COL	(Inches)	1949		ωναου ωναου ωντινω	6.3	000 00 00 00 00 00 00 00 00 00 00 00 00
		Water Content (Inches	1950		00000000000000000000000000000000000000	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	1,000,000,000,000,000,000,000,000,000,0
	1.22	Water	1951			1000	
7 1, 1951		Snow	Depth (Inches)		1 29,57,7,50 2,57,7,7,50 1,57,7,7,50	18.6 19.6 15.0	8,6 17.4 7.5 115.8 115.8 110.1
February	-		lev. of Survey	COLORADO		9000 2/3 9000 2/3 7800 2/1	6000 2/1 7200 2/1 8500 2/1 7350 2/1 7600 2/1 7500 2/1 7500 2/1 7500 2/1
			Kange Elev.		23 E 30 E 17 E 1	± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ±	21E 23E- 30E 8E 6E 15E 15E 14E 14E drainage
9.	Locarton		Two.		988 888 888 888 888 888 888 888 888 888		9N 111N 111N 111N 111N 111N 110N 110N 11
-	LOCA		Sec		328884 1388834 1388834 138888	28 18 Average	. 2 114 23 22 28 28 28 18 31 14 Averag
		No.	and State		25 m m m 25 m m m 25 m m m 25 m m m m	# # # 光	5 Arize 1 " " 13 " " 12 " " 12 " " 28 " " 26 " " 25 " " 19 " " 19 " " 19 " " 19 " " 19 " " 19 " " Arize
		Drainage Basin	and Snow Course	SALT RIVER	Forest Dale McNary Nutrioso Coronado Trail Milk Ranch Gentry Canyon Creek Elk Big Lake Knoll	Baldy Fort Apache Pacheta LITTLE COLOPADO	Forest Dale* McMary Nutrioso* Mormon Lake Fort Valley Gentry Heber Canyon Creek Elk

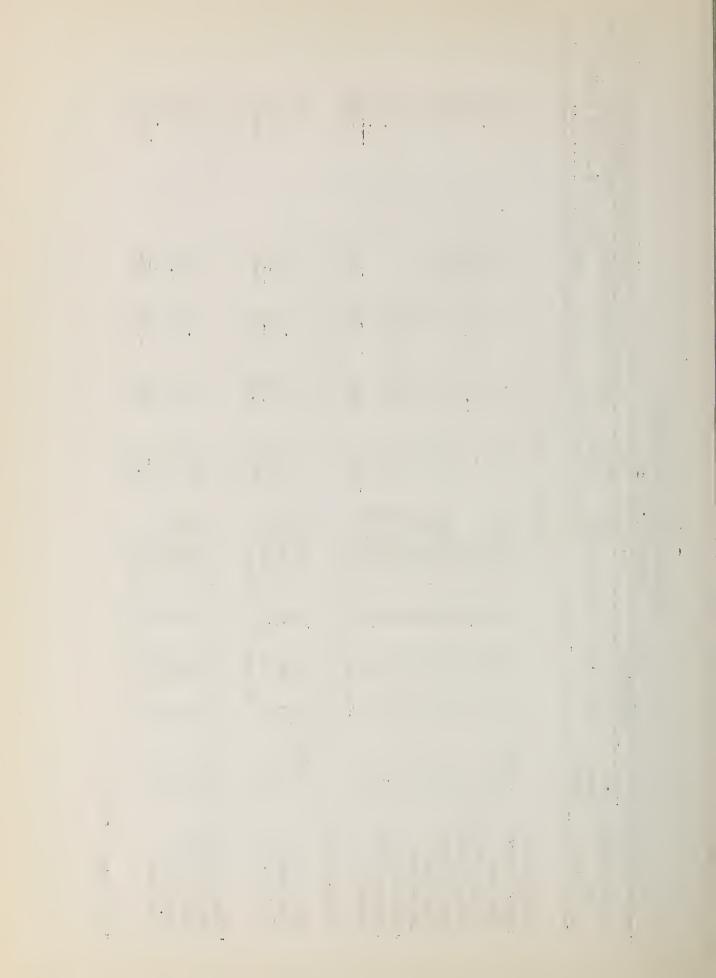
\*On adjacent drainage



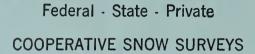
-10-COIORADO RIVER SNOW SURVEYS February 1, 1951

rements	tecord	Av. Water Content (Inches)		1,9	1.9	2,9	7.8	9.0	4,5	യ് വ	5,5	8.0	ر ا ا			1,9	1.9	V A	D o T		ນ ທີ່ເ	, w	) L	7,1		
Snow Course Weasurements	Past Record	Yrs, of kecord			<b>ω</b> .					— ·		Н	٦			tale of the shape of the	$\mathcal{N}$				m (					
Snow	Inches,	1949		9.6	8.6	10,4	20,0	10,2	10,8				o o	700		9.6	8.6	0.9	0.1		12.7	000	7 - 0	9.01		
	Content(	1950		0,0	0,7	1,0	2,9	2°5	ر پ ا	സ് 1 യ	ک <b>،</b> ح	0,0	7, L	ToT		0°0	0.7	000	7,0		7.07	T • T	] ( ] L	3.6	\ \	
	Water	1951		0.0	0,3	g E	(M.C.W	1,3	6°0	ر در ر	505	2,4	2,37	000		0,0	0,3	0,0	<b>∃</b> •0		2,9	1°T	1 (	9,5		
	Snow	Depth (Inches)	RIVER	0,0	2,0	**	Ì	7.9	7.6	200	13,0	15,3	17.7	404		0°0	2.0	0,0	<u> </u>		19.7	, ° °	, , ,	000	1	
	Date	flev, of Survey	COLORADO		5700 2/1	7100	7350	7350 2/1	1/2 0017	6500 2/1	6930 17/31	7300 1/31	_	u ralliage	reprinciple do Fra	6200 1/29	5700 2/1		ınage		8400 2/1			drainage	0	
		Kange		34	M9	2 至 王	H 된	(E)	Œ	王(	ΞX	88	I.T.	CT.		3W	M9	11W	ior a rainage	\$ 164 APT 1686	EE .	를 <sup>5</sup>	- C	JE   for dra		
Location		Twp.		74N	16N	15N	18N	22N	22N	18 N	NRT I	19N		PSP.TA NE		14N	16N	21N	Average		33N	NON	777	Average		
Loc		Sec.		22	~	(1)	13	22	27	_	13	59	174	4		, 22	<u></u>	16	ţ.			77	7 (	7		
	No.	and		7 Arizo	# 8	2; 1	13 "	12 3	a 6	£ 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	3.7.5	:: 9T	5 6 7	W 121 2		7 Ariza	#: - 80	15 #		IVER	11 Arize	01:		::	èrro conse	
	Drainage Basin	and Snow Course		VERDE RIVER Iron Springs*	Camp Wood	Mingus Mountain	Wormon Lakes	Fort Valley*	Chalender*	Munds Park	Casner Park	Antelope Fark	Mormon Mt.		WILLIAMS RIVER	Iron Springs	Camp Wood*	Willow Ranch		LOWER COLORADO RIVER	Bright -ngel	Fent Venyon	ב סיים איין היין	Chalender		

\*On adjacent drainage







Furnishes the basic data necessary for forecasting water supply for irrigation, domestic and municipal water supply, hydro-electric power generation, navigation, mining and industry

"WATER IS THE WEST'S GREATEST RESOURCE"